Appl. No. 09/846,067
Amdt. dated September 16, 2004
Reply to Office action of June 16, 2004

PATENT

REMARKS

This Amendment is filed in response to the non-final Office Action of June 16, 2004. The due date for response is September 16, 2004. The Applicants thank the Examiner for her careful review of the present application and the courtesy extended to the patent counsel acting on behalf of the undersigned in a telephone interview regarding the cited reference, XP-002249737. The Applicants also thank the Examiner for providing a timely Official Notice during the telephone interview that claims 1-18 are rejected under 35 U.S.C. § 102(b), instead of 35 U.S.C. § 103(a).

Claims 1, 3-4, 6-8, 10-20 are pending after entry of the present Amendment.

Objection to the Drawings:

The Examiner objected to the drawings for failing to comply with 37 C.F.R. § 1.84(p)(5) because, first, the drawings do not include the reference characters mentioned in the description, and, second, the drawings include reference characters that are not mentioned in the description. In addition, the Examiner also objected to the drawings for failing to comply with 37 C.F.R. § 1.84(a), because they fail to show operations as described in the specification.

In response to the Examiner's first objection, the specification has been amended to correct typographical errors in the references. In response to the Examiner's second objection, the specification has been also amended to add inadvertently omitted references. With the corrections, the references in the specification match the references on the drawings. In response to the Examiner's last objection to the drawings, Figure 7 is amended to correct the arrows on the drawing. Now, the arrows properly illustrate the process operations as described in the specification. No new matter has been added.

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Accordingly, the Applicants respectfully request the Examiner to withdraw the objections to the drawings.

Objection to the Specification:

The Examiner objected to the informalities in the disclosure including: cross-references to related applications that do not contain updated status of applications; inconsistent use of "RSM 204"; and the use of the trademark JAVA, which should be capitalized in the claims.

The informalities in the disclosure and the inconsistent use of "RSM 204" are now corrected with the amended specification in the present Amendment. The use of the trademark JAVA has been corrected in the currently amended claims. Accordingly, the Applicants respectfully request the Examiner to withdraw the objections to the specification.

Non-Statutory Double Patenting Rejection:

For the record, it is noted that the Examiner cited Section 101, however, non-statutory double patenting is not a Section 101 rejection.

Applicants acknowledge Examiner's provisional rejection of claims 1-18 under the judicially created doctrine of obviousness-type doubt patenting as being unpatentable over claims 1-13 of co-pending application, Application No. 09/833,845. Applicants also acknowledge Examiner's provisional rejection of claim 19-20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over 1-13 of the co-pending application in view of Andersson, XP-002249737.

It is noted that the other art may not be combined with an obviousness-type double patenting rejection, as this type of rejection concerns the examination of what the "claims" teach or suggest. That is, do the "claims" of the co-pending related application make obvious

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the "claims" of the present application. Thus, the Applicants submit that this rejection is not proper.

If this provisional rejection is the only rejection pending after entry and consideration of this amendment, then the Examiner should withdraw the rejection, as the application said to be conflicting is not yet issued as a patent. See MPEP 804 I.B.

Rejections under 35 U.S.C. § 102(b):

Claims 1-18 are rejected under 35 U.S.C. § 102(b) as being unpatentable over Ma et al. (U.S. Patent 5,920,725), hereinafter Ma et al. For the reason put forth below, Applicants respectfully assert that Ma et al. fails to disclose each and every feature recited in amended independent claims 1.

One embodiment of the present invention as recited in amended independent claim 1 is a method for upgrading managed state for a JAVA based application. The method includes executing a JAVA module on a server, wherein the JAVA module is in a middle-tier between a client browser and databases. The JAVA module includes at least one original entity bean and at least one original state object in communication with the original entity bean. The original state object stores a state of the original entity bean. An upgraded state object is generated by upgrading a physical schema using data stored in a repository that is part of the databases. The state that is stored in the original state object is transferred to the upgraded state object. An upgraded entity bean is generated by using data stored in the system repository. State management for the original entity bean is provided by using the upgraded state object.

The present invention as recited in amended claim 1 provides the method for online upgrade of a managed state for a JAVA based application in a middle-tier. Page 2, line 19-21, and page 8, line 2-5. The JAVA module as recited in amended claim 1 is in the middle-tier.

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The original entity bean and the original state object, which are part of the JAVA module, are in the middle-tier. The upgraded state object and the upgraded entity bean are also in the middle-tier. In contrast, Ma et al. discloses a system for updating objects in remote clients. Col. 4, line 36-38, Figure 5 and Figure 6. Remote clients are not in the middle-tier. The updating system disclosed in Ma et al. contradicts with the method recited in amended claim 1, because the system disclosed in Ma et al. performs updates in remote clients, but the upgrading system recited in claim 1 does not go to remote clients. Accordingly, the teachings of Ma et al. achieve an opposite result to that of amended claim 1, because in Ma et al. remote clients are updated, while the invention recited in claim 1 performs upgrades in the middle-tier. For at least these reasons, the invention as recited in amended claim 1 is patentable over Ma et al., as Ma et al. fails to teach each and every element of claim 1.

The Examiner also asserts that the original state object and the original entity bean are features that are anticipated by the server application 86 and the client application 74, respectively, as disclosed in Ma et al. The Applicants respectfully disagree with the Examiner's assertion. First, as discussed above, all the features recited in amended claim 1 are in the middle-tier. The amended claim language recites that "...the JAVA module is in a middle-tier <u>between a client browser and databases</u>." The original entity bean recited in amended claim 1 is in the middle-tier; whereas, the client application 74 disclosed in Ma et al. is in the remote client. So, the original entity bean is not anticipated by the client application 74 as asserted by the Examiner. Second, both the original state object and the original entity bean are respectively upgraded in amended claim 1, but, in Ma et al., neither the server application 86 nor the client application 74 is updated. Therefore, neither the original state object, nor the original entity bean is anticipated by the server application 86 and the client application 74, respectively. Accordingly, for these additional reasons, amended independent claim 1 is not anticipated by Ma et al. under a Section 102 rejection.

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Similarly, dependent claims 3, 4, 6, and 7, which draw their dependencies from independent claim 1, are not anticipated by Ma et al. for substantially the same reason as discussed for amended independent claim 1, and for the additional limitations in which each dependent claims respectively recite.

Moreover, the currently amended independent claim 8 is not anticipated by Ma et al. for substantially the same reasons as provided for amended independent claim 1. Accordingly, amended independent claim 8 is also not anticipated by Ma et al. Furthermore, dependent claims 10, 11, 12, 13, and 14, which draw their dependencies from independent claim 8, are similarly not anticipated by Ma et al. for substantially the same reason as provided for amended independent claim 8, and for the additional limitations in which each dependent claims respectively recite.

Furthermore, the currently amended independent claim 15 is not anticipated by Ma et al. for substantially the same reasons as provided for amended independent claim 1. Accordingly, the amended independent claim 15 is also not anticipated by Ma et al. Moreover, dependent claims 16, 17, and 18, which draw their dependencies from independent claim 15, are similarly not anticipated by Ma et al. for substantially the same reasons as provided for amended independent claim 15, and for the additional limitations in which each dependent claims respectively recite.

Rejections under 35 U.S.C. § 103(a):

Claims 19-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ma et al. as applied to claims 15-18, and further in view of Andersson (XP-002249737), hereinafter Andersson. Applicants respectfully traverse the Examiner's rejection.

As discussed in the previous section, Ma et al. fails to disclose each and every element recited in amended independent claim 15. Applicants further assert that the

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teachings in Andersson fail to remedy the deficiencies in Ma et al to render amended

independent claim 15 and its dependencies, particularly claims 19-20, obvious.

Andersson discloses a JAVA distributed run-time update management system

(hereinafter "JDrums") for updating programs and software in remote clients. See Abstract,

col. 1, line 5-8, and Introduction, col. 1, line 15-35. The system disclosed in Andersson has

substantially similar deficiencies as discussed for Ma et al.; that is, the run-time management

update system in Andersson updates remote clients, whereas, an embodiment of the present

invention as recited in amended claim 15 performs upgrades in the middle-tier, not in remote

clients. Specifically, the amended claim language claim 15 specifically recites that "... the

JAVA module is in a middle-tier between a client browser and databases." In other words,

the present invention as recited in amended claim 1 performs upgrades in the middle-tier

without affecting remote clients.

Furthermore, there is no suggestion in Andersson that motivates a person of ordinary

skilled to modify Ma et al. to achieve a completely opposite result. That is, modify the

system as disclosed in Ma et al. to perform updates in the middle-tier, any such modification

would render the system of Ma et al inoperative for its intended purpose. Therefore, Ma et al

does not render amended independent claim 15 in view of Andersson. Dependent claims 19

and 20, which draw their dependencies from independent claim 15, are similarly not obvious

for substantially the same reason as provided for amended independent claim 15 and for the

additional reasons provided below.

For dependent claim 19, the Examiner asserts it would have been obvious to one of

ordinary skilled to modify the teachings of Ma et al. to include a classification of the original

and upgraded state objects into a state management unit as disclosed by that Andersson.

Applicants respectfully traverse the Examiner rejection.

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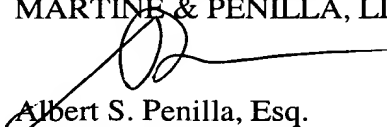Reply to Office action of June 16, 2004

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Andersson discloses a procedure for converting the internal state of a JAVA object into a state that corresponds to another object. See The Update Process, col. 4, line 46-48. The information needed to perform the conversion is gathered in a Conversion Package. See Strategy, col. 4, line 52-54, and col. 5, line 5-8. In contrast, the present invention as recited in amended dependent claim 19, state objects are partitioned and classified to multiple state management units, and not into one conversion package. Page 7, line 1-2, page 18, line 8-9, page 18, line 15-17, page 19, line 7-9, page 19, line 15-18, and page 19, line 15-18. The teaching in Andersson is opposite to the present invention as recited in amend claim 19, because gathering information into one package is opposite to partitioning state objects into multiple state management units. At least for the reasons discussed above and the additional reasons discussed here, Ma et al. does not render amended dependent claim 19 obvious Ma et al. in view of Andersson.

Dependent claim 20, which drawings its dependency from claim 19, is similarly not obvious for substantially the same reasons as amended dependent claim 20 and for the additional limitation for which it recites.

Accordingly, after entry of the present Amendment, the application is now in a condition for allowance. A Notice of Allowance is therefore respectfully requested.

If the Examiner has any questions concerning the present Amendment, the Examiner is kindly requested to contact the undersigned at (408) 749-6903. If any other fees are due in connection with filing this Amendment, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. SUNMP007). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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IN THE DRAWINGS

Amendment to the Drawings:

The attached drawing sheet provides changes to Figure 7. This sheet replaces the

original sheet, which includes Figure 7.